

Title (en)

Use of a nucleic acid sequence for the generation of a transgenic plant having enhanced drought tolerance

Title (de)

Verwendung einer Nukleinsäure zur Herstellung einer transgenen Pflanze mit verbesserter Toleranz gegenüber Trockenheit

Title (fr)

Utilisation d'une acide nucléique pour la production d'une plante transgénique présentent une tolérance accrue à la sécheresse

Publication

EP 1941045 B1 20110420 (EN)

Application

EP 05778218 A 20050906

Priority

NL 2005000644 W 20050906

Abstract (en)

[origin: US8940961B2] Transgenic plants with novel phenotypes, especially plants with enhanced drought and pathogen resistance. Provided are transgenic crop plants having integrated in their genome a chimeric gene, wherein the chimeric gene includes a transcription regulatory sequence active in plant cells operably linked to a nucleic acid sequence encoding a protein having the sequence of SEQ ID NO: 3 or a protein at least 70% identical to SEQ ID NO: 3 or an ortholog or a functional fragment thereof. In addition to enhanced drought tolerance the transgenic plants may show enhanced disease resistance and enhanced root structure. Also, a method for generating a transgenic plant by insertion of the chimeric gene.

IPC 8 full level

C12N 15/82 (2006.01); **A01H 5/00** (2006.01); **A01H 5/10** (2006.01); **C07K 14/415** (2006.01); **C12N 15/29** (2006.01)

CPC (source: EP US)

C07K 14/415 (2013.01 - EP US); **C12N 15/8261** (2013.01 - EP US); **C12N 15/827** (2013.01 - EP US); **C12N 15/8273** (2013.01 - EP US); **C12N 15/8279** (2013.01 - EP US); **C12N 15/8282** (2013.01 - EP US); **Y02A 40/146** (2018.01 - EP US)

Citation (examination)

- HU H. ET AL.: "Overexpressing a NAM, ATAF, and CUC (NAC) transcription factor enhances drought resistance and salt tolerance in rice", PNAS, vol. 103, no. 35, 29 August 2006 (2006-08-29), pages 12987 - 12992, XP002508897
- KEREPESI I.; GALIBA G.: "Osmotic and salt stress-induced alteration in soluble carbohydrate content in wheat seedlings", CROP SCIENCE, vol. 40, March 2000 (2000-03-01), pages 482 - 487
- FINKELSTEIN R.R.; GIBSON S.I.: "ABA and sugar interactions regulating development: cross-talk or voices in a crowd?", CURRENT OPINION IN PLANT BIOLOGY, vol. 5, 2001, pages 26 - 32

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